

# Low Level Design

Food Recommendation System

#### Written By Bhavya M Shah

Document Version 0.1



#### **Document Control**

#### **Change Record:**

Version	Date	Author	Comments
0.1	18 – Dec-	Bhavya	Introduction & Architecture defined
	2022	Shah	
0.1	18 – Dec-	Bhavya	Architecture & Architecture Description appended and updated
	2022	Shah	
0.1	18 – Dec-	Bhavya	Unit Test Cases defined and appended
	2022	Shah	

#### **Reviews:**

Version	Date	Reviewer	Comments
0.1	16 – Dec-	Bhavya	Document Content , Version Control and Unit Test Cases to be
	2022	Shah	added

#### **Approval Status:**

Version	Review Date	Reviewed By	Approved By	Comment	



## Contents

1.	Intr	roduction	1
	1.1.	What is Low-Level design document?	1
	1.2.	Scope	1
2.	Arc	hitecture	2
3.	Arc	hitecture Description	3
	3.1.	Data Description	3
	3.2.	ML Project	3
	3.3.	Data Cleaning	3
	3.4.	EDA (Exploratory Data Analysis)	3
	3.5.	Export Data from Database	3
	3.6.	Data Pre-processing	3
	3.7.	Data pre-processing	3
	3.10.	Creation of train test and validation sets	4
	3.11.	Model Creation	4
	3.12.	Hyperparameter tuning	4
	3.13.	Model deployment	4
4.	Uni	t Test Cases	5



#### 1. Introduction

#### 1.1. What is Low-Level design document?

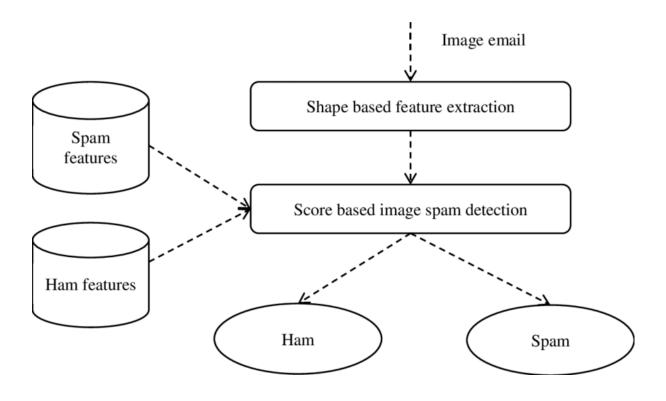
The goal of LLD or a low-level design document (LLDD) is to give the internal logical design of the actual program code for Food Recommendation System. LLD describes the class diagrams with the methods and relations between classes and program specs. It describes the modules so that the programmer can directly code the program from the document.

#### 1.2. Scope

Low-level design (LLD) is a component-level design process that follows a step-bystep refinement process. This process can be used for designing data structures, required software architecture, source code and ultimately, performance algorithms. Overall, the data organization may be defined during requirement analysis and then refined during data design work



# 2. Architecture







## 3. Architecture Description

#### 3.1. Data Collection

Load, summary statistics, information about dataset. Spam Detection dataset is the biggest publicly available dataset.

#### 3.2. NLP Project

In order to generate an accurate prediction of spam detection we need some more data.

#### 3.3. Data Pre-processing

We have to pre process apply EDA for the best output.

# 3.4. Creation of train test and validation sets Divide the data into train and test split

# **3.5.** Model Creation Divide the data into train and test split

## **Test Case**

Test-Case Description	Pre-Requisites	Executed Result
Verify whether the Application URL is accessible to the user	Application URL should be defined	Application URL should be accessible to the user
Verify whether the Application loads completely for the user when the URL is accessed	1. Application URL is accessible	The Application should load completely for the user when the URL is accessed
Verify whether the user is able to enter the message	Application is accessible	User should be able to enter the sms/email in the text area.
Verify whether the model is able to Detect that the email/sms is spam or ham	Verifivation of the message	Yes the model is able to detect that the message is Spam or Ham.
Verify whether KPIs modify as per the user inputs for the user's health	Application is accessible	KPIs should modify as per the user inputs for the user's
Verify whether the KPIs indicate details of the suggested sales	Application is accessible	The KPIs should indicate details of the suggested sales

